IGIC Meeting Minutes
May 18, 2006
Indiana State Library, Room 401
Indianapolis, IN 46204

Introductions
Jim Stout, IGIC President, called the meeting to order at 1:10. A quorum was achieved and attendees introduced themselves (list follows the minutes).

Approval of Agenda
Mike Machlan moved the minutes be approved with "annual business meeting" stricken. David Smoll seconded and the motion passed.

Approval of Minutes
Mike Machlan moved the minutes from the previous meeting be approved. Shaun Scholer seconded and the motion passed.

Financials
Shaun Scholer briefed the council on the new reporting format. Jennifer Dubeansky clarified that the expense category for "conference" refers to events IGIC sends representatives to, as opposed to the Indiana GIS conference.

Mike Machlan moved to accept the financials and place on file. David Smoll seconded, and the motion passed.

Recognition of Orthophotography Partners
Jim Stout reported that Anna Radue and Indiana University – University Information Technology Services (UITS) have gone well above and beyond the call in disseminating the 2006 orthophotography. A brief show of hands indicated nearly everyone in the room had been to their website. Their work typifies the spirit of volunteerism. Jill Saligoe-Simmel pointed out that without Anna and her group it would not be possible for most people to view the entire state. Jim moved that UITS be recognized for their outstanding efforts. Irv Goldblatt seconded and the motion passed.

Anna reported that UITS has gotten new software for the site, and will soon get new hardware, which will improve downloading capability. Right now it's just a challenge to keep people from breaking it.

In conjunction with the work UITS has done, the Indiana Geological Survey (IGS) has been posting IMS services for the orthophotography. They have also put in an immense amount of work to make

this possible. Jim Stout moved that IGS be recognized for developing the orthophotography web map services. Bruce Nielsen seconded and the motion passed.

News and Discussion of Board Member Projects

Because the Indiana GIS Initiative (INGISI) has evolved into IGIC's general membership, the joint IGIC-INGISI meetings will be phased out this year. Board meetings will now include an open discussion period. Board members and guests are encouraged to report on projects or items of interest they or their organizations are involved with.

Jim Stout, Indianapolis Mapping and Geographic Infrastructure System (IMAGIS): In response to the damage sustained by high-rise buildings last month, IMAGIS is looking at building a wind-analysis model for downtown Indianapolis. Using elevation data and wireframes, a 3-D model is being generated to study how storms effect the structures.

Shaun Scholer, City of Richmond / Wayne County GIS Interlocal: Wayne County is in the midst of a parcel conversion process, and incorporating building permit applications. They have been coordinating with the highway department, sanitary district, emergency management, and other potential partners to compile a master addressing database for the county. Zoning and planning departments have also bee included from the highest levels to the support offices.

Wayne County is also working to develop a site similar to SAVI (www.savi.org), which hosts social data for central Indiana. County agencies want to incorporate local data into a mini-SAVI. The site will allow hospitals, colleges, and other organizations to upload and map their own data.

Bruce Nielsen, USDA-Natural Resources Conservation Service (NRCS): NRCS is working on applications to distribute downloadable soils data to the general public via the Soil Data Mart www.soildatamart.nrcs.usda.gov. An interactive map with imagery and soils data is accessible at www.websoilsurvey.nrcs.usda.gov. It includes web services, though only for NRCS employees at present. County-level soil surveys should be certified by October, though delays may push that back to the end of the year.

Irv Goldblatt, State of Indiana Center of Excellence for GIS: The newly-formed Center of Excellence is defining its role, structure, services and identifying funding. Basic infrastructure is being built to support State services, which may be extended to the public at a later date. The current priority has been building a portal and loading the orthophotography into it. The service is not yet available, so the State is pointing to the UITS site.

The Center is looking at how other states coordinate GIS activities. Indiana compares favorably on a national level. Irv Goldblatt and Jill Saligoe-Simmel have been invited to present at the upcoming Digital Government Summit.

Larry Stout, Hamilton County: Hamilton County has always shared data at no cost through groups like the HAmilton County Local Government GIS Technical Advisory Group (HAGTAG). HAGTAG is implementing a system where 911 address data can be maintained by municipalities using ArcSDE. It has been a fairly significant political event, since the project entails giving cities and towns access to Hamilton County's system. After hearing of the project, the Parks Department has also expressed an interest in posting all their multi-use trails (HAMPA) on the GIS site. So far, it has been a very exciting project, potentially award-worthy.

Jenny Johnston, IUPUI University Library: UL is currently hosting the online Data Library. They are also working with the Children's Museum and GENI on a large upcoming exhibit called Maps: Tools for Adventure. UL is overseeing the technology aspects. The exhibit, which opens October

14th, will look at National Geographic explorers and maps over time. It will include lesson plans and standards that conform to Indiana curriculum. The exhibit will be on display through February, then travel worldwide for the next 5 years.

Kevin Jordan, Schrader Real Estate and Auction: As representative from private industry, Kevin has been more involved with the end-uses of GIS. They have been using it in real estate to look at land use over time for investor groups. Specifically, they are working with former coal industry sites, moving land back into agriculture or residential uses. GIS has been a tool for assessing the marketability of real estate. It affords a birds-eye view to analyze new uses for reclaimed land.

Becky McKinley, Hammond Sanitary District/NW Indiana GIS Forum: The district, with their staff of one, has been trying to get a handle on all the orthophotography data.

The NW Indiana GIS Forum hosted an Orthophotography Road Show in April, which was very successful, and very well attended. The customizable application for First Responders was particularly well-received. The event and IGIC received some good local press. A full list of press contacts was delivered to Jenny Dubeansky to begin building a press list for IGIC – other board members are encouraged to send her any contacts they may have.

The Forum is also working with IGS and the Indiana Department of Environmental Management to promote and fund the Lake Rim GIS website. It contains environmental data specific to the area that is primarily relevant for local groups.

Bob Weaver, Hoosier Heartland/IASWCD: Johnson County has restarted GIS coordination efforts. They have data from as early as 1995, but it has not been used in decision-making, emergency management or planning. They have recently collected pictometry in partnership with the Metropolitan Planning Organization, and are close to contracting for a countywide 911 address database (including door-to-door verification). Johnson County applied for an Star Grant from the federal Environmental Protection Agency to fund a County GIS director, set up an ArcIMS server, and begin data coordination. A lot has been accomplished in the last 6 months.

Mark Butterfield, Duke Utilities (formerly Cinergy): The Indiana Utility Regulatory Commission (IURC) has utility service areas documented on mylar. The goal is to turn that information into a GIS. To that end, the Indiana Electric Association has contracted with WTH Engineering and The Polis Center at IUPUI to perform the data conversion. The ArcIMS server at AccessIndiana (the State's public internet agency) will host a site with the boundaries of all service areas for Indiana's utility providers. All REMCs, municipal utilities, and cooperatives in the state will be included. Conversion begins next week, with a completion date of December 2006. Support from throughout the state has been monumental.

Kent Park, EarthData: EarthData has been focused on finalizing the 2006 reflights of the orthophotography, elevation and color infrared data. All products were delivered to Dewberry for quality control and distribution in early May. Final delivery for reflights (necessitated by leaf-on conditions) will be delivered by the end of July. EarthData has a "good forever" policy. This means if anyone finds a problem with any of the imagery, EarthData will correct the problem. Contact the IGIC offices with information about bad tiles.

EarthData is also updating FEMA floodmaps and enhancing them with break lines and 2-foot contour lines. Coordination is going through Dave Knipe at the Indiana Department of Natural Resources.

Brad Buening, Indiana Farm Bureau: The biggest issue for Farm Bureau is large hog and dairy operations moving into the state. They are working on how to fine-tune zoning ordinances in the counties for various types of agri-business. They were awarded a technology grant to build a

small GIS module with basic layers and siting criteria. It can be used to find the balance between animals, humans, agriculture, etc. Ideally, they would like to see this application cover the entire state, with the ability to analyze specific hot spots, and perform analysis on land use and impact for potential incoming operations. Historical maps can be used to find trends and for economic development in general. The package will be small and user-friendly, but with some customization abilities.

Steven Hook, Noble County: For the last 3 years, Noble County has been working to build a countywide GIS. They contracted with the Schneider Corporation to implement ArcSDE. The County GIS website went online earlier this year. The next steps are to work with different departments, getting them to take ownership and maintain their data. They have been working closely with the economic development director, who has been enthusiastic and supportive of the GIS department.

Betty Kiechle, Lake County Surveyor's Office: The Surveyor's Office has received funding to begin building their framework layers (though all layers are all partially or fully completed). Parcel data is the most requested information. The County is offering public access this and other data through standalone terminals that will be placed at 4 or 5 sites around the county.

Charley Hickman, US Geological Survey: USGS is working to get a dedicated liaison for Indiana. Originally the agency advertised liaison positions for 30 states, but there is only funding for 5. Provided Indiana is one of those 5, the new liaison will be located at the USGS Water Office in Indianapolis.

One of USGS' goals for the year is to have a complete, nationwide hydrography dataset at 1:24,000 scale. After the data has been collected, Indiana will take ownership, updating it as necessary. Currently, State Agencies are the primary users, and may become the stewards. Once finished, the next step is to broaden the audience for the dataset.

The federal Office of Management and Budget has introduced a new concept, "lines of business." They have sent out a questionnaire on how to improve coordination at the federal level. IGIC responded through Jill Saligoe-Simmel in her position on the board of the National States Geographic Committees (NSGIC).

Anna Radue, Indiana University-University Information Technology Services: UITS has been concentrating on uploading the orthophotography, and performing quality control on the deliverables.

Beginning in the fall, UITS will be supporting the School of Public and Environmental Affairs on a project to assess the impact of global warming on the eastern seaboard. UITS wants to create GIS-enterprise services to support the project.

Jim Binkley, Scottsburg Municipal Electric Utility: Jim became superintendent of the electric utility about 3 years ago. The utility had paid to have a GIS built, but had not been taking full advantage of it. Jim worked with WTH Engineering, who had already been involved with the county 911, to add and update data to the system.

Primarily GIS has helped with installing broadband, which Scottsburg has been championing for rural areas. GIS allows them to see topography and foliage, so they can plan for antenna locations without visiting a site first. They are still in the process of familiarizing crews with the technology, but are constantly finding new ways to use it.

The utility is also collecting GPS coordinates, which can be hugely helpful in conjunction with the orthophotography. Their main obstacle has been obtaining data for surrounding counties, specifically streets and addresses.

David Smoll, Indiana County Surveyor's Association: Based on the State's implementation of the Centers of Excellence, Hancock County is attempting to develop a similar system to leverage GIS expertise. David Smoll thanked Irv Goldblatt at the State for the idea and IGIC for bringing people together. In Hancock County, the Surveyor (David) is responsible for GIS. David wants to have their newest employee spend half their time on work for the Surveyor's Office, and the other half propagating GIS in other departments in the county. The goal for the next 4 years of his term is to help other Hancock County departments use GIS.

Mike Machlan, Elkhart Public Works and Utilities: Elkhart County is breaking away from MACOG (Michiana Area Council of Governments) to create its own GIS website. Elkhart is looking forward to continuing a good relationship with MACOG. Elkhart Public Works is looking for a GIS technician. Any suggestions or recommendation for qualified candidates are appreciated.

Cliff Lovin, Woolpert: Woolpert has been working on statewide orthophotography for Ohio. This has been one of the worst years for flying, in terms of weather. They were able to fly the north half of the state to collect orthophotography, infrared and elevation data (lidar). The remaining southern counties will be flown next spring. Using a buy-up model similar to the one Indiana used, 8 counties bought up from 1-foot to 6-inch resolution. All data was collected digitally using ADS-40.

Brian Stephens, Woolpert: Ohio has developed a statewide Location-Based Response System (LBRS). They are currently acquiring address points and centerlines through OGRIP (Ohio Geographically Referenced Information Program), the statewide coordinating body. LBRS is used extensively by emergency responders.

Ken Chaffman, Woolpert: Ohio is also planning to drape the new imagery over an elevation surface to create a 3-D model for the department of transportation, who will use it to analyze true road distances.

Unfinished Business

IGIC Business
The executive committee approved a raise for Jenny at the April meeting.

eCommerce Site
Jill Saligoe-Simmel demonstrated a draft of the new eCommerce site. The site will be able to accept credit card orders and reservations for the conference, education events, data distribution, membership, etc. It is an extremely flexible design, and can be administered by IGIC, without the need to have the developer manage and update it. The site will go live before the next board meeting.

Security issues were raised regarding the use and acceptance of credit cards. The site should describe the encryption features used for customers to feel safe divulging their payment information. Bob Weaver noted that QuickBooks has the ability to handle credit card processing.

The site will offer a number of orthophotography, elevation and color infrared products, though TIFFs will only be available from IGS or UITS. There is some concern over the potential workload

in producing the disks and packages, and some adjustments in product, pricing or staff may need to be made.

Projects
Information for Indiana
The Governor's initiative to bring together government and universities is examining data efficiencies and coordination throughout the state with the goal of improving the business of government. The group has been writing subject area briefs. The GIS brief explains what GIS is, and outlines Indiana's status, plans, challenges, and the IndianaMap. Hardcopies will be sent out with letter from the Governor to all state legislators. IGIC will also be receiving an additional 500 copies. Board members can request copies, and are encouraged to hand these out at every opportunity.

Membership Technology Discounts
An IGIC subcommittee will be working to have the ESRI quantity discount for members in place by the fall.

Becky McKinley reported that TerraGo technologies has offered a 15% discount on their Map2PDF extension for ArcGIS. It incorporates limited GIS functionality (measuring, point data) into a PDF document. TerraGo will also help IGIC create a brochure and marketing materials.

Anna Radue asked about obtaining a licensing fee discount for IU to use GooglePro in the teaching clusters. Jill Saligoe-Simmel will contact Google to follow up with this.

Orthophotography Distribution Activities
IGIC developed a one-page brief (follows minutes) outlining all of the organization's distribution activities for the orthophotography. It includes everything from online downloads to facilitating large transfers to the eCommerce site.

Indiana Department of Homeland Security Contract
IGIC has completed several reports on the orthophotography for this contract. The online GIS Inventory is also being populated with responses, which IGIC is facilitating. The final task involves making calls to those counties who have not reported on their status. Generally, there has been good progress.

IndianaMap for Economic Development
This project is similar to IndianaMap in a Library Near You. It entails conducting training centered on economic development at locations around the state. IGIC is working with the Indiana Economic Development Corporation to identify local contacts. Participant organizations will receive a package with the orthophotography and additional local data.

Becky McKinley reported that Hammond's economic development officials are very involved with GIS, and she is actively promoting its use. Becky will send Jill those contacts, and others are encouraged to do the same.

Larry Stout asked if anyone had been involved with the site selection for the Honda plant that may be built in Indiana (according to the Governor's Office and local news). IGIC provided a copy of the orthophotography for Decatur and Ripley counties to the Indiana Economic Development Corporation several months ago. IEDC was not able to divulge who their client was at the time, but likely the imagery was used in negotiations with Honda.

Realtors have been approaching Mike Machlan for information about using GIS. Lou Zickler of MIBOR plans to include an article in their next newsletter on the orthophotography project. Kevin

Jordan has been using Google overlays for auctions and planning, and makes extensive use of Noble County's website. Others commented that having information online from assessors and auditors makes a huge difference. Pictometry in particular can be very useful for realtors, and organizations outside local government are willing to post that data online.

Strategic and Business Planning for the IndianaMap
IGIC has been slowly developing an implementation plan for statewide GIS and framework data. There will be a day-long workshop this summer to assess the current situation, brainstorm new ideas, and plan for the future. The question will be: How do we get to where Ohio is with their Location Based Response System? Parcels and addresses are main priorities. The Board will see more information on this in the future.

IndianaMap Web Integration
IGIC worked on this project with The Polis Center, and Innovative Mapping Solutions, and later with Pinnacle Mapping when project lead Phil Worrall relocated. Originally this was to be a demonstration project showing how data from multiple web map services could be streamed into a single map. It would allow the user to access parcel data, for example, from several counties, and pull it into a single map that would appear uniform and seamless. The Polis Center developed the middleware technology to make this possible. The pilot included data from 5 counties using different software vendors for their web map services.

What became clear was that the Open GIS Standards for web map services were implemented differently by each of the software vendors. As a result, there are serious issues with symbology and projections. There are also substantial limitations on access to the databases, preventing analysis. The conclusion is that the web map services technology is not capable of supporting production at this time. Fortunately, there are other groups working to make this happen. Information about the project and findings will be posted to the IGIC website.

IndianaMap in a Library Near You
This project, funded by a grant from the SBC/AT&T Foundation, will provide an orthophotography package to one library in every county. The package will include the imagery, AccuGlobe viewer and additional raster data, and will be available for circulation. Posters for the IndianaMap will also be send to every library in the state. IGIC will offer librarians free training on using the packages, GIS resources, and the IndianaMap. The project release is being coordinated with a press release on the orthophotography from the Lieutenant Governor's Office, the new IndianaMap viewer, and the eCommerce site. There were numerous compliments on the poster, designed by Jill Saligoe-Simmel.

IndianaMap Viewer
IGIC has contracted the Indiana Geological Survey (IGS) to build a simple viewer for the IndianaMap. It will include basic framework data, web map services and a revised viewer. It may be online as early as next week. The site will incorporate the 1-meter UTM orthophotography as a backup for the imagery, in addition to hitting the UITS site. Currently the UITS site is down for scheduled maintenance every first Tuesday of the month, though this may change in next few months. With this redundancy built in, there should always be imagery on the IndianaMap viewer. The url www.indianamap.org will be directed to a transitional IGIC webpage where visitors will be invited to "Start using your IndianaMap." The agreement for the viewer and hosting will cost $2,000. IGS will no longer host a separate page for framework data web map services.

2006 Statewide Orthophotography Project
- All color tiles and 1:20 MrSids have been delivered to the Counties by Pinnacle Mapping, with the last shipment sent May 10th.

- Acquisition vendor EarthData is correcting errors in 13 infrared quarter-quads, and 10 one-meter quarter-quad mosaics. When these are shipped, Pinnacle will have the whole state for both products.
- The last of the corrected Digital Elevation Model (DEM) tiles were shipped to Pinnacle on May 17th. All DEM and Digital Surface Model (DSM) tiles are at Pinnacle.
- Pinnacle continues packaging the township mosaics, DEM, DSM, RGB, and color infrared imagery products for final delivery.
- Pinnacle is also continuing production of the final First Responder and AccuGlobe viewing applications.
- A press release has been drafted and is under review by the Lieutenant Governor's Office.
- EarthData has finished 2006 reflights for the areas with heavy leaves. The new photos are scheduled to be delivered in July.
- UITS has moved township and county mosaics to spinning disk from tape system in an effort to eliminate shut-downs. IGS is going to sell county mosaics on DVD sets for $300, which will also take some stress off the system.
- Distribution
    - Google loaned IGIC terra drives to facilitate moving and verifying data, and will be posting the orthophotography on GoogleEarth
    - Pinnacle will load the data onto 8 terra drives provided by Microsoft. Microsoft will post the data on livelocal.com and teraserver to act as mirror sites to UITS and IGS in case of catastrophe like 9-11 or Hurricane Katrina. Microsoft will then donate the drives to IGIC.
    - EROS will receive a copy of the orthophotography (via the Microsoft drives) for distribution to all federal agencies
- The elevation data and color infrared imagery will also be posted on the UITS website for download, and be sent to Google, Microsoft and EROS.
- Jim Stout thanked Anna Radue for recommending the MrSid products be written into the orthophotography acquisition contract talking us into getting that additional product. The MrSids are substantially smaller and easier to work manipulate, with little to no reduction in quality.

New Business

Projects
IndianaMap on the Road Exhibit
As part of a new grant from IndianaView at Purdue University, IGIC will be working with an IUPUI museum studies professor and intern on a traveling IndianaMap exhibit. The purpose is to explain what the IndianaMap is and why it is important – using drawings and photos with very little text. IGIC has been offered exhibit space at the Arts Garden and City Market, and hope to display it at the statehouse, children's museums, and state museum.

Board Meeting Schedule and Format
Because we will no longer be holding joint INGISI-IGIC meetings, the public will be encouraged to attend regular board meetings. As such, officials votes will be conducted at the beginning of the meetings, attendees will all be called on to discuss items of interest (though probably not the full round table held today), and presentations from board members will be added.

The joint meetings scheduled for July 20th and November 16th will be from 1:00-4:00. There will also be a meeting in January, either on the 18th or 25th. Though we had avoided this in the past, having the conference in March leaves a four-month gap in the schedule. Anna Radue offered to

set up videoconferencing at IU campuses – Gary, New Albany, Fort Wayne, South Bend, etc. – for anyone who wishes to attend electronically.

Other Business

Orthophotography Road Shows and Seminars
IGIC is presenting 6 Road Shows around the state this summer covering the orthophotography. There will also be seminars in Indianapolis on each of the products. Jenny Dubeansky has been instrumental in putting these events together. Alex Wernher, who could not be in attendance, asked that Board members be apprised of how easy the What is IGIC presentation (handed out on disk at the March meeting) is to use.

Press
IGIC is building a press list through activities like the Road Shows. Jill Saligoe-Simmel has also met with WFYI staff who may want to incorporate the orthophotography into the show Across Indiana. The local independent paper, Nuvo, is also planning a story on the project. The reporter Jill spoke with is excited about using it herself, as well as publicizing the project.

Other
Becky McKinley reported that Urban and Regional Information Systems Association (URISA) sent a survey, which she encourages everyone to fill out. Jill Saligoe-Simmel responded for IGIC.

Committee Reports
Thanks to Mark Butterfield for updating the Board on Utilities Committee activities with IURC.

Legislative Committee
The Legislative Committee met earlier this month, and will be concentrating on policy and maintenance funding for framework data layers. One of most important things IGIC can do in next year is resolve the legislative and policy issues surrounding basic data availability and funding.

Bob Weaver reported that there were numerous changes made in the last session to water and soil laws. He worked to incorporate GIS into the language as often as possible. Though explicit funding was not provided, it affords excellent justification for using water funds for GIS.

Conference Committee
Irv Goldbaltt, new chair of the Conference Committee, reported that the group is looking at a couple of significant changes for the 2007 conference. 1.) In an effort to provide more advanced topics for the workshops, presenters will be directly solicited and offered free registration. We also have the ability with the new eCommerce site to charge for individual sessions, if needed Irv also stressed that less advanced topics will still be offered, and that the forum is meant to be all-inclusive. 2.) The conference will be held on Monday and Tuesday, which may affect the timing of the Board meeting, usually held the night before. After some discussion, it was determined that Sunday evening was preferable to holding it concurrently with the workshops on Monday morning. Jill Saligoe-Simmel will send an email to the full Board to gauge opinion.

Standards Committee
For personal and health reasons, Betty Kiechle will not be able to stay active as chair of the Standards Committee until the end of the summer. She put before the Board the option of replacing her. Jim Stout acknowledged Betty's great leadership on the committee. Considering

how valuable Betty's service has been, it may be preferable to suspend committee activities until she is ready to re-take the chair, or name a temporarily replacement if needed.

Adjourn

Irv Goldblatt moved the meeting be adjourned. Becky McKinley seconded and the motion passed.

Attendees

Board Members

Jim	Binkley	Scottsburg Municipal Electric Utility
Brad	Buening	Indiana Farm Bureau
Irv	Goldblatt	Indiana State Center of Excellence for GIS
Charley	Hickman	US Geological Survey
Steven	Hook	Noble County
Kevin	Jordan	Schrader Real Estate & Auction Company
Michael	Machlan	City of Elkhart
Becky	McKinley	Northwest Indiana GIS Forum
Bruce	Nielsen	US Department of Agriculture - NRCS
Kent	Park	EarthData International
Anna	Radue	Indiana University
Shaun	Scholer	City of Richmond / Wayne County GIS Interlocal
David	Smoll	Indiana County Surveyor's Association
Jim	Stout	IMAGIS
Larry	Stout	Hamilton County
Bob	Weaver	Hoosier Hearland / IASWCD, Inc.

Proxies

Mark	Butterfield	Duke Energy
Jenny	Johnson	IUPUI University Library

Guests

Betty	Kiechle	Lake County Surveyor
Cliff	Lovin	Woolpert
Ken	Chaffman	Woolpert
Brian	Stevens	Woolpert

IGIC

Jennifer	Dubeansky	Staff
Jill	Saligoe-Simmel	Executive Director

IndianaMap – 2005 Orthophotography Data Distribution

The 2005 Orthophotography Project supports emergency management, economic development, planning, environmental management and an unlimited number of other activities. Developed as a multi-use public domain project, its value increases the more that it is used, and **demand across the public and private sector is huge**.

The project is funded primarily through State and local homeland security grants, plus additional contributions from local communities, the Indiana Department of Environmental Management, Indiana Department of Natural Resources, US Geological Survey, and the Indiana Geographic Information Council (IGIC). The original project scope provides for the distribution of copies of the data to the State of Indiana and to each county. The 2005 Orthophotography Project presents significant challenges for additional data distribution.

As a public service, IGIC has taken steps to build partnerships for access solutions, marketing, and training to enable data distribution resources that meet a broad audience and ensure its widest possible distribution. Only those public products that have been designated by the Indiana Department of Homeland Security (IDHS) as having "no distribution restrictions" are distributed by IGIC or its partners. Below is a summary of distribution mechanisms currently in place or under development:

- Geodatabase Services – allows professional GIS users free database connectivity on a permission basis. (Partnership between IGIC and Indiana University-UITS. IGIC grant funding from the Federal Geographic Data Committee; UITS grant funding from IDHS and IU in-kind contributions.)
- MassStor – allows free download capabilities, along with long-term archiving of the datasets. (Partnership between IGIC and Indiana University-UITS. IGIC grant funding from the Federal Geographic Data Committee; in-kind contributions.)
- Web Map Services – allows professional GIS users free access to "stream" the entire statewide data set into their desktop GIS applications. (Partnership between IGIC and the Indiana Geological Survey.)
- IndianaMap - In a Library Near You! – provides free off-line access to the public through packaged data and free GIS viewer distributed to public libraries in each county. (IGIC grant funding from the AT&T Foundation; AccuGlobe distribution through an agreement between IGIC and DDTI.)
- IndianaMap for Economic Development – provides free training and packaged data and GIS viewer to economic development organizations around the state. (IGIC grant funding from the Indiana Economic Development Corporation.)
- Off-line Copies of Data
  - DVD Copies of MrSid Data – provides copies on disk of various datasets for purchase through IGIC. (UNDER DEVELOPMENT Cost to purchase includes time and materials for reproduction and delivery; service provided through IGIC's e-Bookstore.)

- o Hard Drive Copies of TIFF Data – provides copies on external hard-drives of large quantity requests for TIFF data (<mark>UNDER DEVELOPMENT</mark> Cost to purchase includes time and materials for reproduction and delivery; service provided through the Indiana Geological Survey.)
- External Parties On-line Access and Archiving – as costs allow, IGIC is facilitating distribution of the public dataset to other entities upon request, such as the US Census Bureau, US Geological Survey, EROS Data Center, Google, and others.

IGIC continues to explore additional data distribution mechanisms to ensure the widest possible use and value of these data.